

## Patent Abstracts of Japan

DS

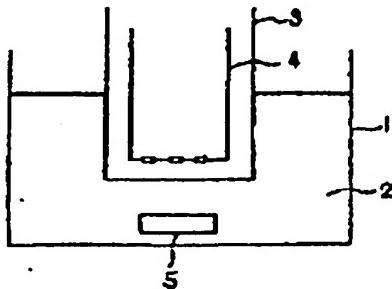
PUBLICATION NUMBER : JP4238281  
 PUBLICATION DATE : 26-08-92  
 APPLICATION NUMBER : JP910005249  
 APPLICATION DATE : 21-01-91

VOL: 17 NO: 7 (P - 1465)  
 AB. DATE : 07-01-1993 PAT: A 4238281  
 PATENTEE : SEIKO INSTR INC  
 PATENT DATE: 26-08-1992

INVENTOR : OMI MANABU; others: 03

INT.CL. : G01R33/035; C25D5/00;  
 C25D21/12; G01N27/72

TITLE : ELECTROCHEMICAL REACTION  
 MEASURING DEVICE



ABSTRACT : PURPOSE: To measure the current, which really flows in a part where an electrochemical reaction is generated, at high sensitivity by using a measuring device with a high sensitivity magnetic sensor which uses Josephson effect.  
 CONSTITUTION: A reaction cell 1 holds the solution 2, and a magnetic field or inclination of the magnetic field is measured by a measuring device 4, which is located in a dewar 3 made of the chemically non-active material, with Josephson effect. The dewar 3 is soaked in the solution 2. When an electrochemical reaction is generated in the surface of a sample 5, the material having an electric charge is moved to generate a magnetic field in the surroundings. This magnetic field is measured by a measuring device 4, and this measurement data is analyzed to know that what degree of electrochemical reaction is generated in what part of the surface of the sample 5.